Slingshot Rocket

Kit contains:

- 1 straw
- 1 paper clip
- 1 pencil top eraser
- 1 craft stick
- 1 rubber band
- 1/2 index card

You will need: scissors and tape (masking tape works best).

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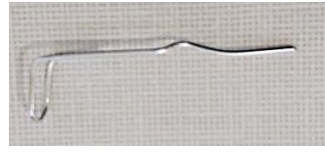
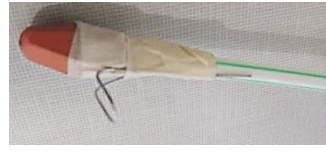
INSTRUCTIONS

Step 1. Slide the pencil top eraser onto the straw. Tape it in place.

Step 2. Straighten out ONE bend of the paper clip. Then fold the U side 90 degrees to create a hook.

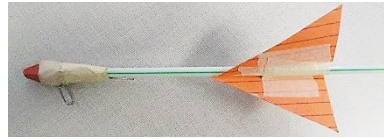


Step 3. Tape the hook to the straw at the base of the eraser as shown.



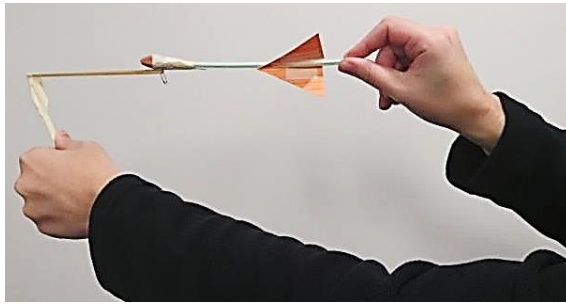
Step 4. Cut the index card into 3 or 4 triangular fins. (It helps to cut two equal rectangles, and then cut them along the diagonal.)

Step 5. Tape the fins at regular intervals to the other end of the straw, leaving an inch of straw free.



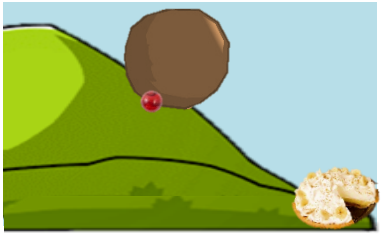
Step 6. To build your slingshot, tape the rubber band to the top of the craft stick. Add a SECOND piece of tape for reinforcement.

Now you are ready to launch!
Hold the slingshot in one hand. Grip the rocket behind the fins with your other hand. Hook the rubber band, pull back, and release the rocket.



BUILDING MOMENTUM

Imagine that a small marble and a gigantic boulder are rolling down a hill at the same **velocity** (speed). They're both heading toward a banana cream pie. What happens next? The pie stops the marble, but the boulder squishes the pie and keeps on rolling. The heavier boulder has more **momentum** than the lighter marble.



Momentum = mass x velocity

Did you worry that your slingshot rocket would be too heavy to fly? Adding mass (weight) to the straw rocket's body with the eraser and all of that tape actually helped it fly farther through the air.